#### 46 CFR Ch. I (10-1-14 Edition)

#### §56.97-40

complete and all joints are leak-tight, the piping has met the requirements of §56.97–1.

[CGD 73-254, 40 FR 40168, Sept. 2, 1975]

#### §56.97-40 Installation tests.

- (a) The following piping systems shall be hydrostatically leak tested in the presence of a marine inspector at a pressure of 1½ times the maximum allowable working pressure of the system:
- (1) Class I steam, feedwater, and blowoff piping. Where piping is attached to boilers by welding without practical means of blanking off for testing, the piping shall be subjected to the same hydrostatic pressure to which the boiler is tested. The maximum allowable working pressures of boiler feedwater and blowoff piping shall be the design pressures specified in §§56.50–30(a)(3) and 56.50–40(b), respectively.
- (2) Fuel oil discharge piping between the pumps and the burners, but not less than 500 pounds per square inch.
- (3) High-pressure piping for tank cleaning operations.
- (4) Flammable or corrosive liquids and compressed gas cargo piping, but not less than 150 pounds per square inch.
  - (5) Any Class I, I-L, II-L piping.
  - (6) Cargo oil piping.
- (7) Firemains, but not less than 150 pounds per square inch.
- (8) Fuel oil transfer and filling piping.
  - (9) Class I compressed air piping.
- (10) Fixed oxygen-acetylene system piping.
- (b) Installation testing requirements for refrigeration, fluid power, and liquefied petroleum gas cooking and heating systems may be found in part 58 of this subchapter.
- (c) Class II piping systems shall be tested under working conditions as specified in the section on initial service leak test, §56.97–38.

[CGFR 68–82, 33 FR 18843, Dec. 18, 1968, as amended by CGFR 69–127, 35 FR 9980, June 17, 1970; CGD 72–206R, 38 FR 17229, June 29, 1973 CGD 73–254, 40 FR 40168, Sept. 2, 1975; CGD 95–028, 62 FR 51202, Sept. 30, 1997]

### PART 57—WELDING AND BRAZING

#### Subpart 57.01—Scope

Sec

57.01-1 Qualifications and production tests.

#### Subpart 57.02—General Requirements

57.02-1 Incorporation by reference.

57.02-2 Adoption of section IX of the ASME Code.

57.02–3 Performance qualifications issued by other agencies.

57.02-4 Fabricator's responsibility.

57.02–5 Filler metals.

#### **Subpart 57.03—Procedure Qualifications**

57.03-1 General requirements.

## Subpart 57.04—Procedure Qualification Range

57.04–1 Test specimen requirements and definition of ranges (modifies QW 202, QW 210, QW 451, and QB 202).

#### Subpart 57.05—Performance Qualifications

57.05-1 General.

57.05-2 Transfer of performance qualifications.

57.05–3 Limited space qualifications.

57.05-4 Welder qualification by procedure tests.

57.05-5 Low temperature application.

#### **Subpart 57.06—Production Tests**

57.06-1 Production test plate requirements.57.06-2 Production test plate interval of testing.

57.06-3 Method of performing production testing.

57.06-4 Production testing specimen requirements.

57.06–5 Production toughness testing.

AUTHORITY: 46 U.S.C. 3306, 3703, E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; 49 CFR 1.46.

SOURCE: CGFR 68-82, 33 FR 18872, Dec. 18, 1968, unless otherwise noted.

#### Subpart 57.01—Scope

## § 57.01-1 Qualifications and production tests.

(a) (Replaces QW 101 and QB 101.) The regulations in this part shall apply to the qualification of welding procedures, welders, and brazers, and to production tests for all types of manual and machine arc and gas welding and brazing processes.

(b) ( $Modifies\ QW\ 305\ and\ QB\ 305.$ ) Operators of fully automatic welding and brazing machines are specifically exempt from performance qualification tests.

[CGFR 68–82, 33 FR 18872, Dec. 18, 1968, as amended by CGD 74–102, 40 FR 27460, June 30, 1975]

# Subpart 57.02—General Requirements

#### § 57.02-1 Incorporation by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a). To enforce any edition other than that specified in paragraph (b) of this section, the Coast Guard must publish notice of change in the FED-ERAL REGISTER and make the material available to the public. All approved material is on file at the Coast Guard Headquarters. Contact Commandant (CG-ENG), Attn: Office of Design and Engineering Systems, U.S. Coast Guard Stop 7509, 2703 Martin Luther King Jr. Avenue SE., Washington, DC 20593-7509. The material is also and is available from the sources indicated in paragraph (b) of this section or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal register/ code of federal regulations/ ibr locations.html.

(b) The material approved for incorporation by reference in this part and the sections affected are:

American Society of Mechanical Engineers (ASME) International

Three Park Avenue, New York, NY 10016-5990 Boiler and Pressure Vessel Code, section IX, Welding and Brazing Qualifications, July 1989 with 1989 addenda.....57.01-1; 57.02-2; 57.02-3; 57.02-4; 57.03-1; 57.04-1; 57.05-1; 57.06-1; 57.06-3;

[CGD 88-032, 56 FR 35823, July 29, 1991, as amended by CGD 95-072, 60 FR 50462, Sept. 29, 1995; 60 FR 54106, Oct. 19, 1995; CGD 96-041, 61 FR 50728, Sept. 27, 1996; USCG-1999-6216, 64 FR 53224, Oct. 1, 1999; USCG-2009-0702, 74 FR 49229, Sept. 25, 2009; USCG-2012-0832, 77 FR 59778, Oct. 1, 2012; USCG 2013-0671, 78 FR 60148, Sept. 30, 2013]

## § 57.02-2 Adoption of section IX of the ASME Code.

(a) The qualifications for all types of welders and brazers, the qualification of welding procedures, and the production tests for all types of manual and machine arc and gas welding and brazing processes shall be in accordance with section IX of the ASME (American Society of Mechanical Engineers) Code, as limited, modified, or replaced by specific requirements in this part. For general information Table 57.02–1(a) lists the various paragraphs in section IX of the ASME Code which are limited, modified, or replaced by regulations in this part.

TABLE 57.02–1(a)—LIMITATIONS AND MODIFICA-TIONS TO THE ADOPTION OF SECTION IX OF THE ASME CODE

Paragraphs in section IX ASME code, and Disposition	Unit of this part
QW-101 replaced by	57.01-1(a).
QW-103 replaced by	57.02-3(a).
QW-201 modified by	57.03-1(a).
QW-202 modified by	57.04–1
QW-202.1 modified by	57.03-1(b).
QW-210 modified by	57.04-1.
QW-211 modified by	57.02-4.
QW-253 modified by	57.03-1(g).
QW-254 modified by	57.03–1(g).
QW-255 modified by	57.03-1(g).
QW-305 modified by	57.01-1(b).
QW-451 modified by	57.03-1(b) and
	57.04-1.
QB-101 replaced by	57.01-1(a).
QB-103 replaced by	57.02-3(a).
QB-201 modified by	57.03-1(a).
QB-202 modified by	57.04–1.
QB-305 modified by	57.01–1(b).

(1) As stated in §50.15–5 of this subchapter, section IX of the ASME Code is adopted and shall be the governing requirements for the qualification of all types of welders and brazers, the qualification of all types of welding procedures, and the production tests for all types of manual and machine arc and gas welding and brazing processes used in fabricating power boilers, heating boilers, pressure vessels and piping unless specifically limited, modified or replaced by other regulations in this part.

(b) References to the ASME Code, like paragraph QW-131.1 indicate:

Q=Section IX, Welding and Brazing Qualifications, ASME Code.